

7. REFERENCES

- Ainsworth, B.E., W.L. Haskell, A.S. Leon and D.R. Jacobs, Jr. 1993. Compendium of Physical Activities: Classification of Energy Costs of Human Physical Activities. *Med. Sci. Sports Exer.* 25:71-80.
- Akland, G., T. Hartwell, T. Johnson and W.R. Whitmore. 1985. Measuring Human Exposure to Carbon Monoxide in Washington, D.C., and Denver, Colorado, During the Winter of 1982-1983. *Environ. Sci. Technol.* 19:911-918.
- Allott, R.W., M. Kelly and C.N. Hewitt. 1992. Behavior of Urban Dust Contaminated by Chernobyl Fallout: Environmental Half-lives and Transfer Coefficients. *Environ. Sci. Technol.* 26:2142-2147.
- Åstrand, I. 1960. Aerobic Work Capacity in Men and Women with Special Reference to Age. *Acta. Physiol. Scand.* 49(Supp. 169).
- Bennett, B.G. 1981. The Exposure Commitment Method in Environmental Pollutant Assessment. *Environ. Monit. Assess.* 1:21-36.
- Bennett, B.G. 1982. Exposure of Man to Environmental Nickel – An Exposure Commitment Assessment. *Sci. Total Environ.* 22:203-212.
- Brainard, J. and D. Burmaster. 1992. Bivariate Distributions for Height and Weight of Men and Women in the United States. *Risk Analysis.* 12:267-275.
- Buck, R.J., K.A. Hammerstrom, and P.B. Ryan. 1995. Estimating Long-term Exposures from Short-term Measurements. *J. Expos. Anal. and Environ. Epidemiol.* 5, 359-373.
- Bureau of Census. 1994. STP154: Census Tract of Work by Census Tract of Residence. U.S. Department of Commerce, Population Division, Journey-to-Work and Migration Statistics Branch.
- Bureau of Census. 1995. American Housing Survey for the Denver Metropolitan Area in 1995. Current Housing Reports. Report No. H170/95-46. U. S. Department of Commerce.
- Burmaster, D.E. and K. von Stackelberg. 1991. Using Monte Carlo Simulations in Public Health Risk Assessments: Estimating and Presenting Full Distributions of Risk. *J. Expos. Anal. Environ. Epidemiol.* 1:491-512.
- Burmaster, D.E. and E.A.C Crouch. 1997. Lognormal Distributions of Body Weight as a Function of Age for Males and Females in the United States, 1976-1980. *Risk Analysis.* 17:499-505.
- Calabrese, E.J. and E.J. Stanek. 1995. Resolving Intertracer Inconsistencies in Soil Ingestion Estimation. *Environ. Health Persp.* 103:454-457.

CARB. 1998a. California Air Resources Board. Development of a Model for Assessing Indoor Exposure to Air Pollutants. Report No. IE-2631. Sacramento, CA: Research Division. January.

CARB. 1998b. California Air Resources Board. Measuring Concentrations of Selected Air Pollutants Inside California Vehicles. Contract No. 95-339. Sacramento, CA: Research Division. December.

Commission of Risk Assessment and Risk Management (CRARM). 1997. Risk Assessment and Risk Management in Regulatory Decision-Making. Final Report, Volume 2.

Continuing Survey of Food Intakes by Individuals (CSFII) 1996 and the Diet and Health Knowledge Survey 1994-96. Food and Nutrient Intake by Individuals in the United States by and Age, 1994-96. NFS Report No 96-2. U.S. Department of Agriculture.

Cullen, A.C. and H.C. Frey. 1999. Probabilistic Techniques in Exposure Assessment: A Handbook for Dealing with Variability and Uncertainty in Models and Inputs. Plenum Press, New York.

Daisey, J.M., K.R.R. Mahanama and A.T. Hodgson. 1998. Toxic Volatile Organic Compounds in Simulated Environmental Tobacco Smoke: Emission Factors for Exposure Assessment. J. Expos. Anal. Environ. Epidem. 8:313-334.

Davis, S., P. Waller, R. Buschbom, J. Ballou and P. White. 1990. Quantitative Estimates of Soil Ingestion in Normal Children Between the Ages of 2-years and 7-years – Population-based Estimates Using Aluminum, Silicon, and Titanium as Soil Tracer Elements. Arch. Environ. Health. 45:112-122.

Droppo, J.G., Jr., J.W. Buck, D.L. Streng and B.L. Hoopes. 1992. Risk Computation for Environmental Restoration Activities. J. of Haz. Mat. 35:341-352.

Duan, N. 1982. Models for Human Exposure to Air Pollution. Environment International 8: 305.

Ershow, A.G. and F.P. Cantor. 1989. Total Water Intake and Tapwater Intake in the United States: Population-based Estimates of Quantiles and Sources. Report prepared under National Cancer Institute Order #263-MD-810264 with the Life Sciences Research Office, Federation of American Societies for Experimental Biology, Bethesda, MD.

Freijer, J.I., H.J. Th. Bloemen, S. de Loos, M. Marra, P.J.A. Rombout, G.M. Steentjes and M.P. van Veen. 1997. Modelling Exposure of the Dutch Population to Air Pollution. In: B.J.M. Ale, M.P.M. Janssen, and M.J.M. Pruppers, eds. Proceedings of the Risk 97: International Conference Mapping Environmental Risks and Risk Comparison, RAI International Congress Centre, Amsterdam, The Netherlands, pp. 105-111.

General Sciences Corporation (GSC). 1988. PCGEMS User's Guide, Release 1.0. Contract No. 68-02-4281. Prepared for U.S. Environmental Protection Agency, Office of Toxic Substances, Exposure Evaluation Division.

Georgopoulos, P.G., A. Walia, A. Roy and P.J. Liou. 1997. Integrated Exposure and Dose Modeling and Analysis System. 1. Formulation and Testing of Microenvironmental and Pharmacokinetic Components. *Environ. Sci. Technol.* 31:17-27.

Glen, G., Y. Lakkadi, J.A. Tippet and M. del Valle-Torres (Prepared by ManTech Environmental Technology, Inc.). 1997. Development of NERL/CHAD: The National Exposure Research Laboratory Consolidated Human Activity Database. EPA Contract No. 68-D5-0049.

Hayes, S.R., C. Seigneur and G.W. Lundberg. 1984. Numerical Modeling of Ozone Population Exposure: Application to a Comparison of Alternative Ozone Standards. San Rafael, CA: Systems Applications, Inc.

Hayes, S.R. and G.W. Lundberg. 1985. Further Improvement and Sensitivity Analysis of an Ozone Population Exposure Model. San Rafael, CA: Systems Applications, Inc.

Heil, D.P., P.S. Freedson, L.E. Ahlquist, J. Price and J.M. Rippe. 1995. Nonexercise Regression Models to Estimate Peak Oxygen Consumption. *Med. Sci. Sports Exer.* 27:599-606.

Jenkins, P.L., T.J. Phillips, E.J. Mulberg, and S.P. Hui. 1992. Activity Patterns of Californians: Use of and Proximity to Indoor Pollutant Sources. *Atmos. Environ.* 26A:2141-2148.

Jenkins, R.A., A. Palausky, R.W. Counts, C.K. Bayne, A.B. Dindal and M.R. Guerin. 1996. Exposure to Environmental Tobacco Smoke in Sixteen Cities in the United States as Determined by Personal Breathing Zone Air Sampling. *J. Expos. Anal. Environ. Epidem.* 6:473-502.

Johnson, T.R., L. Wijnberg, J. Capel and Vostal. 1992a. The Use of Activity Diary Data to Estimate the Probability of Exposure to Air Pollution. In: R.L. Burglund, ed. *Tropospheric Ozone and the Environment II*. Pittsburgh, PA: Air and Waste Management Association, pp. 713-724.

Johnson, T., J. Capel, R. Paul and L. Wijnberg. 1992b. Estimation of Carbon Monoxide Exposures and Associated Carboxyhemoglobin Levels in Denver Residents Using a Probabilistic Version of NEM. Contract No. 68-DO-0062. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. July.

Johnson, T., M. McCoy and J. Capel. 1993a. Enhancements to the Hazardous Air Pollutant Exposure Model (HAPEM) as Applied to Mobile Source Pollutants. Contract No. 68-DO-0062. Prepared by International Technology Corporation for U. S Environmental Protection Agency, Office of Air Quality Planning and Standards. September.

- Johnson, T., M. McCoy, J. Capel, M. Alberts and B. Morrison. 1993b. Estimation of Incremental Benzene Exposures and Associated Cancer Risks Attributable to a Petroleum Refinery Waste Stream Using the Hazardous Air Pollutant Exposure Model (HAPEM). Paper presented at the 86th Annual Meeting of the Air and Waste Management Association, Paper #A1389, Denver, Colorado.
- Johnson, T.R. 1995. Recent Advances in the Estimation of Population Exposure to Mobile Source Pollutants. *J. Expos. Anal. Environ. Epidemiol.* 5:551-571.
- Johnson, T., J. Warnasch, M. McCoy, J. Capel and M. Riley. 1996a. Developmental Research for the Hazardous Air Pollutant Exposure Model (HAPEM) as Applied to Mobile Source Pollutants. Contract No. 63-D-30094. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. February.
- Johnson, T., J. Capel and M. McCoy. 1996b. Estimation of Ozone Exposures Experienced by Urban Residents Using a Probabilistic Version of NEM and 1990 Population Data. Contract No. 68-DO-0062. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. April.
- Johnson, T., J. Capel, M. McCoy and J. Mozier. 1996c. Estimation of Ozone Exposures Experienced by Outdoor Workers in Nine Urban Areas Using a Probabilistic Version of NEM. Contract No. 63-D-30094. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. April.
- Johnson, T., M. Weaver and J. Mozier. 1998. Variation of Residential Air Exchange Rates under Scripted Ventilation Conditions. Paper presented at the International Symposium on the Measurements of Toxic and Related Pollutants, Air and Waste Management Association, Cary, NC, September 1–3, 1998.
- Johnson, T., G. Mihlan, J. LaPointe, K. Fletcher and J. Capel. 1999. Estimation of Carbon Monoxide Exposures and Associated Carboxyhemoglobin Levels in Denver Residents Using pNEM/CO (Version 2.0). Contract No. 68-D6-0064. Prepared by TRJ Environmental, Inc. for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. March.
- Johnston, P.K., C.A. Cinalli, J.R. Girman, and P.W. Kennedy. 1996. Priority Ranking and Characterization of Indoor Air Sources. In *Characterizing Sources of Indoor Air Pollution and Related Sink Effects*. B. A. Tichenor, Ed. ASTM STP 1287. American Society for Testing and Materials. 392-400.
- Jones K.C., T. Keating, P. Diage and A.C. Chang. 1991. Transport and Food Chain Modeling and its Role in Assessing Human Exposures to Organic Chemicals. *J. Environ. Qual.* 20:317-329.
- Katch, V. L. and M. W. Park. 1975. Minute-by-Minute Oxygen Requirement and Work Efficiency for Constant-load Exercise of Increasing Duration. *Res. Q.* 46:38-47.

- Klepeis, N., P. Switzer, et al. 1994. A Total Human Exposure Model (THEM) for Respirable Suspended Particles. Air and Waste Management Association Meeting.
- Lagus Applied Technology. 1995. Air Exchange Rates in Non-residential Buildings in California. Document No. P400-91-034. Prepared for the California Energy Commission.
- Law, P.L., P.J. Liroy, M.P. Zelenka, A.H. Huber and T.R. McCurdy. 1997. Evaluation of a Probabilistic Exposure Model applied to Carbon Monoxide (pNEM/CO) using Denver Personal Exposure Monitoring Data. J. Air & Waste Manage. Assoc. 47:491-500.
- Lawryk, N., P.J. Liroy, and C.P. Weisel. 1995. Exposure to Volatile Organic Compounds in the Passenger Compartment of Automobiles during Periods of Normal and Malfunctioning Operation. J. Expos. Anal. Environ. Epidemiol. 5:511-531.
- Layton, D.W., L.R. Anspaugh, K.T. Bogen and T. Straume. 1992. Risk Assessment of Soil-based Exposures to Plutonium at Safety-Shot Sites Located on the Nevada Test Site and Adjoining Areas. UCRL-ID-112605DR. Livermore, CA: Lawrence Livermore National Laboratory.
- Liroy, P.J. and J.M. Daisey. 1990. Toxic Air Pollution. Chelsea, MI: Lewis Publishers.
- Liroy, P.J., L. Wallace and E. Pellizzari. 1991. Indoor/Outdoor, and Personal Monitor and Breath Analysis Relationships for Selected Volatile Organic Compounds Measured at Three Homes During New Jersey TEAM – 1987. J. Expos. Anal. Environ. Epidemiol. 1:45-61.
- Lurmann, F.W., A.M. Winer and S.D. Colome. 1990. Development and Application of a New Regional Human Exposure (REHEX) Model. In: Total Exposure Assessment Methodology. Pittsburgh, PA: Air and Waste Management Association, pp. 478-498.
- Lurmann, F.W., S.D. Colome and H. Hogo. 1992. Modeling Current and Future Human Exposure to Ozone in Southern California. In: R.L. Burglund, ed. Tropospheric Ozone and the Environment II. Pittsburgh, PA: Air and Waste Management Association, pp. 725-744.
- Lurmann, F. and E. Korc. 1994. Characterization of Human Exposure to Ozone and PM-10 in the San Francisco Bay Area, Report No. STI-931501416-FR. Sonoma Technology, Inc. San Rafael, CA.
- MacIntosh, D.L., J. Xue, H. Ozkaynak, J.D. Spengler and P.B. Ryan. 1995. A Population-based Exposure Model for Benzene. J. Expos. Anal. Environ. Epidemiol. 5:375-403.
- McCurdy, T. and T. Johnson. 1989. Development of a Human Exposure Model for Ozone. Paper presented at the Total Exposure Assessment Methodology—A New Horizon, EPA/AWMA Specialty Conference, Las Vegas, NV.

- McCurdy, T.R. 1994. Human Exposure to Ambient Ozone. In: D.J. McKee, ed. Tropospheric Ozone: Human Health and Agricultural Impacts. Ann Arbor, MI: Lewis Publishers, pp. 85-127.
- McCurdy, T. 1995. Estimating Human Exposure to Selected Motor Vehicle Pollutants Using the NEM Series of Models: Lessons to be Learned. *J. Expos. Anal. Environ. Epidemiol.* 5:533-550.
- McCurdy, T. 1997. Modeling the Dose Profile in Human Exposure Assessments: Ozone as an Example. *Reviews in Toxicology*. 1:3-23.
- McCurdy, T. 1999. Conceptual Basis for Multi-route Intake Dose Modeling Using an Energy Expenditure Approach. *Journal of Exposure Analysis and Environmental Epidemiology* accepted for publication.
- McKone, T.E. and P.B. Ryan. 1989. Human Exposures to Chemicals Through Food Chains: An uncertainty analysis. *Environ. Sci. Technol.* 23:1154-1163.
- McKone, T.E. and J.I. Daniels. 1991. Estimating Human Exposure Through Multiple Pathways from Air, Water, and Soil. *Regul. Toxicol. Pharmacol.* 13:36-61.
- McKone, T.E. 1993a. CalTOX, a Multimedia Total-Exposure Model for Hazardouswastes Sites Part I: Executive Summary. UCRL-CR-11456, Pt. I. Livermore, CA: Lawrence Livermore National Laboratory.
- McKone, T.E. 1993b. CalTOX, a Multimedia Total-Exposure Model for Hazardous Wastes Sites Part II: the Dynamic Multimedia Transport and Transformation Model. UCRL-CR-111456, Pt. II. Livermore, CA: Lawrence Livermore National Laboratory.
- McKone, T.E. 1993c. CalTOX, a Multimedia Total-Exposure Model for Hazardous Wastes Sites Part III: The Multiple-Pathway Exposure Model. UCRL-CR-111456, Pt. III. Livermore, CA: Lawrence Livermore National Laboratory.
- Mercier, J., A. Varray, M. Ramonatxo, B. Mercier and C. Préfaut. 1991. Influence of Anthropomorphic Characteristics on Changes in Maximal Exercise Ventilation and Breathing Pattern During Growth in Boys. *Eur. J. Appl. Physiol.* 63:235-241.
- Mermier, J., J.M. Samet, W.E. Lambert and T.W. Chick. 1993. Evaluation of the Relationship Between Heart Rate and Ventilation for Epidemiologic Studies. *Arch. Environ. Health.* 48:263-269.
- Miller, S.L., S. Branoff and W.W. Nazaroff. 1998. Exposure to Toxic Air Contaminants in Environmental Tobacco Smoke: an Assessment for California Based on Personal Monitoring Data. *J. Expos. Anal. Environ. Epidemiol.* 8:287-311.
- Morgan, G. M. and M. Henrion. 1990. Uncertainty: A Guide to Dealing with Uncertainty on Quantitative Risk and Policy Analysis. Cambridge, Cambridge University Press.

- Murray, D. M. and D. E. Burmaster. 1995. Residential Air Exchange Rates in the United States: Empirical and Estimated Parametric Distributions by Season and Climatic Region. *Risk Analysis*. 15:459-465.
- Nagda, N.L., H.E. Rector and M.D. Koontz. 1987. *Guidelines for Monitoring Indoor Air Quality*. Washington, D.C.: Hemisphere Publishing Corporation.
- Nazaroff, W.W. and G.R. Cass. 1986. Mathematical Modeling of Chemically Reactive Pollutants in Indoor Air. *Environ. Sci. Technol.* 20:924-934.
- Nazaroff, W.W. and G.R. Cass. 1989. Mathematical Modeling of Indoor Aerosol Dynamics. *Environ. Sci. Technol.* 23:157-166.
- National Research Council (NRC). 1991. *Human Exposure Assessment for Airborne Pollutants: Advances and Opportunities*. Washington, D.C.: National Academy Press.
- NRC/National Academy of Sciences (NAS). 1994. *Science and Judgment in Risk Assessment*. Washington, D.C.: National Academy Press.
- Ott, W. 1982. Concepts of Human Exposure to Air Pollution. *Environ. Int.* 7:179-186.
- Ott, W. 1984. Exposure Estimates Based on Computer Generated Activity Patterns. *J. Clin. Toxicol.* 21:97-128.
- Ott, W.R., D. Mage and L. Wallace. 1988. Validation of the Simulation of Human Activity and Pollutant Exposure (SHAPE) Model using Paired Days from the Denver, Colorado, Carbon Monoxide Field Study. *Atmos. Environ.* 22:2101-2113.
- Ott, W., L. Langan, et al. 1992. A Time Series Model for Cigarette Smoking Activity Patterns: Model Validation for Carbon Monoxide and Respirable Particles in a Chamber and an Automobile. *Journal of Exposure Analysis and Environmental Epidemiology*. 2(Suppl. 2): 175-200.
- Ott W ; Switzer P ; Willits N. 1994. Carbon monoxide exposures inside an automobile traveling on an urban arterial highway. *J. Air & Waste Manage. Assoc.* 44(8):1010-8
- Özkaynak, H., P.B. Ryan, G.A. Allen and W.A. Turner. 1982. Indoor Air Quality Modeling: Compartmental Approach with Reactive Chemistry. *Environ. Int.* 8:461-471.
- Özkaynak, H., J. Xue, J. Spengler, L. Wallace, E. Pellizzari and P. Jenkins. 1996. Personal Exposure to Airborne Particles and Metals: Results from the Particle TEAM Study in Riverside, California. *J. Expos. Anal. Environ. Epidem.* 6:57-78.
- Özkaynak, H. 1999. Personal communication (electronic mail correspondence).

Özkaynak H., Zufall, M., Burke, J., Xue, J., Zidek, J. 1999a. Predicting Population Exposures to PM10 and PM2.5. Presented at PM Colloquium, Durham, NC. June, 1999.

Özkaynak H., Zufall, M., Burke, J., Xue, J., Zidek, J. 1999b. A Probabilistic Population Exposure Model for PM10 and PM2.5. Presented at 9th Conference of the International Society of Exposure Analysis, Athens, Greece. September 5-8, 1999.

Palma, T., M. Riley and J.E. Capel. 1996. Development and Evaluation of Enhancements to the Hazardous Air Pollutant Exposure Model (HAPEM-MS3). Contract No. 63-DO-30094. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. September.

Panguluri, S., T. Johnson and J. Capel. 1998. Development of pHAP-PC Model: A Summary Report. Contract No. 63-D-30094. Prepared by International Technology Corporation for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, June 1998.

Phillips, K., M.C. Bentley, D.A. Howard and G. Alván. 1998. Assessment of Environmental Tobacco Smoke and Respirable Suspended Particle Exposures for Nonsmokers in Kuala Lumpur Using Personal Monitoring. *J. Expos. Anal. Environ. Epidemiol.* 8:519-542.

Quackenboss, J.J., M. Krzyzanowski and M.D. Lebowitz. 1991. Exposure Assessment Approaches to Evaluate Respiratory Health Effects of Particulate Matter and Nitrogen Dioxide. *J. Expos. Anal. Environ. Epidemiol.* 1:83-107.

Raunemaa, T., M. Kulmala, H. Saari, M. Olin and M.H. Kulmala. 1989. Indoor Air Aerosol Model – Transport Indoors and Deposition of Fine and Coarse Particles. *Aerosol Sci. Technol.* 11:11-25.

RIVM, VROM, WVC. 1994. Uniform System for the Evaluation of Substances (USES), Version 1.0. VROM Distribution No. 11144/150. National Institute of Public Health and Environmental Protection (RIVM) Ministry of Housing, Spatial Planning and Environment (VROM), Ministry of Welfare, Health, and Cultural Affairs (WVC), The Hague, The Netherlands.

Roddin, Ellis, and Siddiquee. 1979. Background Data for Human Activity Patterns, Vols. I and II.” SRI International

Rosenbaum, A.S., G.E. Anderson and G.W. Lundberg. 1994. User’s Guide to the South Coast Risk and Exposure Assessment Model – Version 2 (SCREAM-II) for the Personal Computer. San Rafael, CA: Systems Applications International.

Rowland, T.W., J.A. Auchinachie, T.J. Keenan and G.M. Green. 1987. Physiologic Responses to Treadmill Running in Adult and Prepubertal Males. *Inter. J. Sports Med.* 8:292-297.

Ryan, P.B., J.D. Spengler, and R. Letz. 1983. The Effects of Kerosene Heaters on Indoor Pollutant Concentrations: a Monitoring and Modeling Study. *Atmos. Environ.* 17:1339.

- SAI. 1999. Systems Applications International. User's Guide: Assessment System for Population Exposure Nationwide (ASPEN, Version 1.1) – Volumes I and II. SYSAPP-98/25r2. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards.
- Schofield, W.N. 1985. Predicting Basal Metabolic Rate, New Standards, and Review of Previous Work. *Hum. Nutr. Clin. Nutr.* 39C(Supp.1):5-41.
- Sedman, R.M. and R.J. Mahmood. 1994. Soil Ingestion by Children and Adults Reconsidered Using the Results of Recent Tracer Studies. *J. Air & Waste Manage. Assoc.* 44:41-144.
- Sega, K. and M. Fugas. 1991. Different Approaches to the Assessment of Human Exposure to Nitrogen Dioxide. *J. Expos. Anal. Environ. Epidemiol.* 1:227-234.
- Stanek, E.J., E.J. Calabrese, K. Mundt, P. Pekow and K.B. Yeatts. 1998. Prevalence of Soil Mouthing/ingestion among Healthy Children Aged 1 to 6. *J. of Soil Contam.* 7:227-242.
- Stock, T.H., D.J. Kotchman and C.F. Contant. 1985. The Estimation of Personal Exposures to Air Pollutants for a Community-based Study of Health Effects in Asthmatics – Design and Results of Air Monitoring. *J. Air Pollut. Control Assoc.* 35:1266-1273.
- Streng, D.L. and P.J. Chamberlain. 1995. Multimedia Environmental Pollutant Assessment System (MEPAS): Exposure Pathway and Human Health Impact Assessment Models. PNL-10523. Richland, WA: Pacific Northwest Laboratory.
- Thibodeaux, L.J. 1979. *Chemodynamics, Environmental Movement of Chemicals in Air, Water, and Soil.* New York, NY: John Wiley and Sons.
- Thomas, K.W., E.D. Pellizzari, C.A. Clayton, R.L. Perritt, R.N. Dietz, R.W. Goodrich, W.C. Nelson and L.A. Wallace. 1993. Temporal Variability of Benzene Exposures for Residents in Several New Jersey Homes with Attached Garages or Tobacco Smoke. *J. Expos. Anal. Environ. Epidemiol.* 3:49-73.
- Thompson, K.M. and D.E. Burmaster. 1991. Parametric Distributions for Soil Ingestion by Children. *Risk Analysis.* 11:339-342.
- Travis, C.C. and S.T. Hester. 1991. Global Chemical Pollution. *Environ Sci Technol.* 25:814-819.
- Travis, C.C. and B.P. Blaylock. 1992. Validation of a Terrestrial Food Chain Model. *J. Expos. Anal. Environ. Epidemiol.* 2:221-239.
- Turk, B.H., D.T. Grimsrud, J.T. Brown, K.L. Geisling-Sobotke, J. Harrison, and R.J. Prill. 1989. Commercial Building Ventilation Rates and Particle Concentrations. *ASHRAE Transactions.* 95(Part 1).

U.S. EPA. 1983. U.S. Environmental Protection Agency. The NAAQS Exposure Model Applied to Carbon Monoxide. EPA-450/5-83-004. Research Triangle Park, NC: Office of Air Quality Planning and Standards.

U.S. EPA. 1984. U.S. Environmental Protection Agency. A Study of Personal Exposure to Carbon Monoxide in Denver, Colorado. EPA-600/54-84-014. Research Triangle Park, NC: Office of Research and Development.

U.S. EPA. 1986. U.S. Environmental Protection Agency. Users Manual for the Human Exposure Model (HEM). EPA-540/5-86-001. Research Triangle Park, NC: Office of Air Quality Planning and Standards. June.

U.S. EPA. 1987. U.S. Environmental Protection Agency. The Total Exposure Assessment Methodology (TEAM) Study: Summary and Analysis (Volume 1). EPA-600/6-87-002a, NTIS #PB 88-100060. Washington, D.C.: Office of Acid Deposition. June.

U.S. EPA. 1990a. U.S. Environmental Protection Agency. Benzene Exposure Assessment Model (BEAM): 2nd Interim Report. EPA/600/X-90/027. Las Vegas, NV: Environmental Monitoring Systems Laboratory.

U.S. EPA. 1990b. U.S. Environmental Protection Agency. Methodology for Assessing Health Risks Associated with Indirect Exposure to Combustor Emissions. Interim Final. EPA/600/6-90/003. Washington DC, Office of Health and Environmental Assessment.

U.S. EPA. 1991. U.S. Environmental Protection Agency. HEM-II User's Guide. EPA/450/3-91-0010. Research Triangle Park, NC: Office of Air Quality Planning and Standards.

U.S. EPA. 1992a. U.S. Environmental Protection Agency. Guidelines for Exposure Assessment: Notice. Fed. Reg. 57(104):22888-22938. May 29.

U.S. EPA. 1992b. U.S. Environmental Protection Agency. Toxic Modeling System Long-Term (TOXLT): User's Guide. EPA-450/4-92-003. Research Triangle Park, NC: Office of Air Quality Planning and Standards. November.

U.S. EPA. 1992c. U.S. Environmental Protection Agency. A Tiered Modeling Approach for Assessing the Risks Due to Sources of Hazardous Air Pollutants. EPA-450/4-92-001. Research Triangle Park, NC: Office of Air Quality Planning and Standards.

U.S. EPA. 1992d. U.S. Environmental Protection Agency. Multimedia Contaminant Fate, Transport, and Exposure Model: Documentation and User's Manual. Washington, D.C.: Office of Health and Environmental Assessment and Office of Environmental Processes and Effects Research.

U.S. EPA. 1993a. U.S. Environmental Protection Agency. Estimation of the Exposure to Benzene of Selected Populations in the State of Texas Using the Benzene Exposure Assessment Model (BEAM). Las Vegas, NV: Environmental Monitoring Systems Laboratory.

U.S. EPA. 1993b. U.S. Environmental Protection Agency. Addendum to Methodology for Assessing Health Risks Associated with Indirect Exposure to Combustor Emissions. External Review Draft. EPA/600/AP-93/003. Washington DC, Office of Health and Environmental Assessment.

U.S. EPA. 1994a. U.S. Environmental Protection Agency. Report of the Agency Task Force on environmental regulatory modeling. Guidance, support needs, draft criteria and charter. EPA 500-R-94-001. Washington, DC: Office of Solid Waste and Emergency Response.

U.S. EPA. 1994b. U.S. Environmental Protection Agency. Toxic Modeling System Short-Term (TOXST), User's Guide: Volume I. EPA-453/R-94-058A. Research Triangle Park, NC: Office of Air Quality Planning and Standards. July.

U.S. EPA. 1996a. U.S. Environmental Protection Agency. Analysis of the National Human Activity Pattern Survey (NHAPS) Respondents from a Standpoint of Exposure Assessment. EPA/600/R-96/074. Washington, D.C.: Office of Research and Development. July.

U.S. EPA. 1996b. U.S. Environmental Protection Agency. Summary Report for the Workshop on Monte Carlo Analysis. EPA/630/R-96/010. Washington, D.C.: Office of Research and Development. September.

U.S. EPA. 1996c. U.S. Environmental Protection Agency. Exposure Models Library and Integrated Model Evaluation System. Revised. EPA/600/C-92/002. Washington, D.C.: Office of Research and Development. March.

U.S. EPA. 1997a. U.S. Environmental Protection Agency. Mercury Study Report to Congress (Volumes I-VIII). EPA-452/R-97-005. Office of Air Quality Planning and Standards.

U.S. EPA. 1997b. U.S. Environmental Protection Agency. Exposure Factors Handbook; Vol I: General Factors, Vol. II: Food Ingestion Factors, Vol. III: Activity Factors. EPA/600/P-95/002Fa (Vol. I), EPA/600/P-95/002Fb (Vol. II), EPA/600/P-95/002Fc (Vol. III). Washington, D.C.: Office of Research and Development. August.

U.S. EPA. 1997c. U.S. Environmental Protection Agency. Guiding Principles for Monte Carlo Analysis. EPA/630/R-97/001. Washington, D.C.: Office of Research and Development. March.

U.S. EPA. 1997d. U.S. Environmental Protection Agency. Methodology for Assessing Health Risks Associated with Multiple Exposure Pathways to Combustor Emissions. Update to EPA/600/6-90/003. National Center for Environmental Assessment. NCEA 0238. Cincinnati, OH.

U.S. EPA. 1998a. U.S. Environmental Protection Agency. The Total Risk Integrated Methodology. Implementation of the TRIM Conceptual Design through the TRIM.FaTE Module. A Status Report. EPA-452/R-98-001. Research Triangle Park, NC: Office of Air Quality Planning and Standards. March.

U.S. EPA. 1998b. U.S. Environmental Protection Agency. Advisory on the Total Risk Integrated Methodology (TRIM). EPA-SAB-EC-ADV-99-003. Science Advisory Board.

U.S. EPA. 1998c. U.S. Environmental Protection Agency. Peer Review Handbook. EPA/100-B-98-001. January. Washington, DC: Office of Science Policy.

U.S. EPA. 1998d. U.S. Environmental Protection Agency. Study of Hazardous Air Pollutants from Electric Utility Steam Generating Units – Final Report to Congress. EPA 453/R-989-004a. February.

U.S. EPA. 1998e. U.S. Environmental Protection Agency. Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Peer Review Draft. EPA530-D-98-001A. Office of Solid Waste and U.S. EPA Region 6, Multimedia Planning and Permitting Division.

U.S. EPA. 1998f. U.S. Environmental Protection Agency. EPA Third-generation Air Quality Modeling System. EPA-600/R-98/069(b). Washington, D.C.: Office of Research and Development. June.

U.S. EPA. 1998g. U.S. Environmental Protection Agency. THERdbASE, Version 1.2, User's Manual. Las Vegas, NV: Office of Research and Development. August.

U.S. EPA 1999a. U.S. Environmental Protection Agency. Total Risk Integrated Methodology (TRIM). TRIM.FaTE Technical Support Document. Volume I: Description of Module. EPA-453/D-99-002A. Research Triangle Park, NC: Office of Air Quality Planning and Standards. November.

U.S. EPA 1999b. U.S. Environmental Protection Agency. Total Risk Integrated Methodology (TRIM). TRIM.FaTE Technical Support Document. Volume II: Description of Chemical Transport and Transformation Algorithms. EPA-453/D-99-002B. Research Triangle Park, NC: Office of Air Quality Planning and Standards. November.

U.S. EPA 1999c. U.S. Environmental Protection Agency. Total Risk Integrated Methodology (TRIM). Status Report. EPA-453/R-99-010. Research Triangle Park, NC: Office of Air Quality Planning and Standards. November.

U.S. EPA. 1999d. U.S. Environmental Protection Agency. Systems Installation and Operation Manual for the EPA Third-Generation Air Quality Modeling System (Models-3 Version 3.0). Atmospheric Modeling Division, National Exposure Research Laboratory, Research Triangle Park, NC and EPA Systems Development Center (A contractor operated facility), Science Applications International Corporation, Arlington, VA. June.

U.S. EPA. 1999e. U.S. Environmental Protection Agency. National Air Toxics Program: The Integrated Urban Strategy. Federal Register 64: 38705-38740. July 19.

U.S. EPA. 1999f. U.S. Environmental Protection Agency. Residual Risk Report to Congress. EPA - 453/R-99-001. Office of Air Quality Planning and Standards, Research Triangle Park,

NC. March.

U.S. EPA. 1999g. U.S. Environmental Protection Agency. Report of the Workshop on Selecting Input Distributions for Probabilistic Assessments. EPA/630/R-98/004. Washington, D.C.: Office of Research and Development. January.

U.S. EPA. 1999h. Methodology for Assessing Health Risks Associated with Multiple Pathways of Exposure to Combustor Emissions. National Center for Environmental Assessment. Office of Research and Development. EPA 600/R-98/137.

Van Veen, M.P. 1995. CONSEXPO - A program to estimate consumer product exposure and uptake. Report No. 612810.002. Bilthoven, The Netherlands: RIVM.

Wadden, R. A. and P. A. Scheff. 1983. Indoor Air Pollution Characterization, Prediction and Control. New York, NY: Wiley Interscience.

Waldman, J.M., P.J. Liroy, A. Greenberg and J.P. Butler. 1991. Analysis of Human Exposure to Benzo(a)pyrene via Inhalation and Food Ingestion in the Total Human Environmental Exposure Study (THEES). J. Expos. Anal. Environ. Epidemiol. 1:193-225.

Wallace, L.A., E.D. Pellizzari, T. Hartwell, C.M. Sparacino, L.S. Sheldon and H.S. Zelon. 1985. Personal Exposures, Indoor/outdoor Relationships, and Breath Levels of Toxic Pollutants Measured for 355 Persons in New Jersey. Atmos. Environ. 19:1651-1669.

Wallace, L., W. Nelson, R. Ziegenfus, E. Pellizzari, L. Michael, R. Whitmore, H. Zelon, T. Hartwell, R. Perritt and D. Wester Dahl. 1991. The Los Angeles TEAM Study: Personal Exposures, Indoor-outdoor Air Concentrations, and Breath Concentrations of 25 Volatile Organic Compounds. J. Expos. Anal. Environ. Epidemiol. 1:157-192.

Whicker, F.W. and T.B. Kirchner. 1987. PATHWAY: A dynamic food-chain model to predict radionuclide ingestion after fallout deposition. Health Phys. 52:717-737.

Wilkes, C.R., M.J. Small, J.B. Andelman, N.J. Giardino and J. Marshall. 1992. Inhalation Exposure Model for Volatile Chemicals from Indoor Uses of Water. Atmos. Environ. 26A:2227-2236.

Winer, A.M., et al. 1989. Characterization of Air Pollution Exposures in the California South Coast Air Basin: Application of a new Regional Human Exposure (REHEX) model. Riverside, CA: University of California.

Yang, Y.Y. and C.B. Nelson. 1986. An Estimation of Daily Food Usage Factors for Assessing Radionuclide Intakes in the U.S. Population. Health Phys. 50:245-257.

Zartarian, V.G. 1996. DERM (Dermal Exposure Reduction Model): A physical-stochastic model for understanding dermal exposure to chemicals. Doctoral Dissertation. Stanford University, Stanford, CA.

Zartarian V.G., Özkaynak H., Burke J.M., Zufall M.J., Rigas M.L., and Furtaw Jr. E.J. A Modeling Framework For Estimating Children's Residential Exposure and Dose to Chlorpyrifos Via Dermal Residue Contact and Non-Dietary Ingestion. Submitted to Environmental Health Perspectives. September 1999.